

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
13 October 2005 (13.10.2005)

PCT

(10) International Publication Number
WO 2005/094961 A1

(51) International Patent Classification⁷: **B01D 19/00**,
C10G 5/06, E21B 43/34

(74) Agents: **DE GREGORI, Antonella** et al.; Ing. Barzano' &
Zanardo Milano S.p.A., Via Borgonuovo 10, I-20121 Milan
(IT).

(21) International Application Number:
PCT/EP2005/001260

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

(22) International Filing Date: 7 February 2005 (07.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
MI2004A000648 31 March 2004 (31.03.2004) IT

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **SAIPEM**
S.p.A. [IT/IT]; Via Martiri di Cefalonia 67, I-20097 San
Donato Milanese-Milan (IT).

(72) Inventors; and

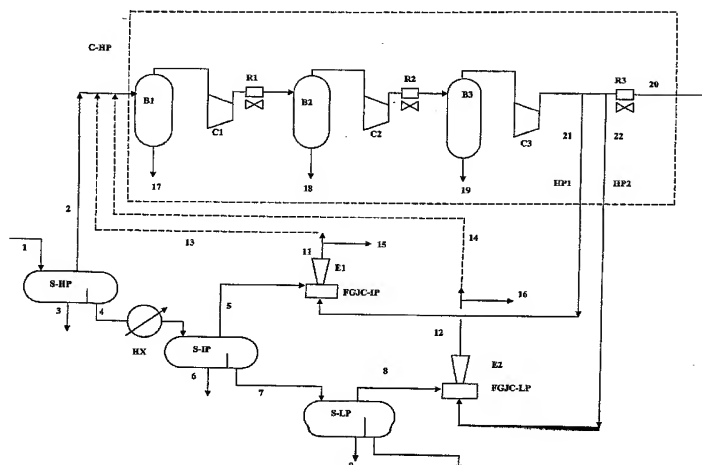
(75) Inventors/Applicants (*for US only*): **ORESTI, Pierluigi**
[IT/IT]; Via F.lli Vigorelli 3, I-20090 Segrate-Milan (IT).
ACOLIATI, Piera [IT/IT]; Via Torino 93, I-20089 Roz-
zano-Milan (IT).

Published:

— with international search report

[Continued on next page]

(54) Title: A PROCESS FOR THE TREATMENT OF FLUIDS ORIGINATING FROM SUBMARINE OIL FIELDS



(57) Abstract: Process for treating on floating units fluid from submarine oil fields, including the following stages: -delivering the fluid (1) to a high pressure separation stage (S-HP) in which the fluid is split into a light hydrocarbon gas phase (2), a water phase (3) and a hydrocarbon liquid phase (4); -delivering the light hydrocarbon gases (2) to a gas reinjection compression unit (C-HP), having at least two compression stages (C1,C2,C3); -delivering the hydrocarbon liquid (4) to one or more-further separation stage: operating at decreasing pressures (S-IP and S-LP), where said liquid (4) is split into a light hydrocarbon gas phase (5,8), a water phase (6,9) and a liquid hydrocarbon phase (7); -delivering the light hydrocarbon gases (5,8) to compression units "Flash Gas Jet Compression" (FGJC), comprising ejectors (E1,E2) which use the compressed gas (21,22) from the gas reinjection compression unit (C-HP) as driving fluid.

WO 2005/094961 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.